DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-000604 Address: 333 Burma Road **Date Inspected:** 10-Oct-2007

City: Oakland, CA 94607

OSM Arrival Time: 2330 **Project Name:** SAS Superstructure **OSM Departure Time:** 800 Prime Contractor: American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: Sha Zhi & Hua Li Wei **CWI Present:** Yes No **Inspected CWI report:** Yes **Rod Oven in Use:** Yes No N/A No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Oualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A **Approved Drawings:** Yes No N/A **Approved WPS:** Yes No **Delayed / Cancelled:** Yes N/A No

34-0006 **Bridge No: Component:** Caltrans Mockup

Summary of Items Observed:

Caltrans Quality Assurance (QA) Inspector, Mike Hasler was present to observe the fitup, welding and related activities associated with the fabricating of Caltrans Mock-up, 77M, 89M and 114M, for the San Francisco Oakland Bay Self Anchored Suspension Bridge, at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

Item Description WBS Dwg No. **Status** Skin Plate C NA NA Work in Progress

Mock-Up 89M, Skin Plate C (lower section): Caltrans QA Inspector observed submerged arc welding (SAW) in progress at plate piecemark, number mp507 to MA23, weld number 37, 38 and mp508 to MA23, weld number 39, 40 inside/outside side. The welder operator is identified as Mr. Wu Zhibin, welder stamp 049804, welding fill/cover pass weld in the flat position. The welder is using welding procedure specification WPS-B-T-2221-B-U3c-S-1, Revision 0 and WPS-B-T-2321-B-P3-S, Revision 0. Caltrans QA measured current welding parameters at approximately 630 amps, 33.0 volts and travel speed, 610 millimeters per minute (mm/min). Preheat and interpass temperatures were verified during welding activities. Preheat temperature prior to the start of welding measures more than 110 degrees Celsius (230 degree Fahrenheit) but less than 232 degrees Celsius (450 degrees Fahrenheit) during maximum interpass temperature verification. SAW consumables were verified and identified as JW-3, classification EM12K, diameter 4.8 mm (.189 inches) electrode and, JF-B Flux, classificationF7A2. The following digital pictures illustrate ZPMC welding cover pass welds in progress.

WELDING INSPECTION REPORT

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Summary of Conversations:

As identified within the contents of this report.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Hasler,Mike	Quality Assurance Inspector
Reviewed By:	Cuellar,Robert	QA Reviewer